

NYLACAST PA6 Nylube Glass Filled

PROPERTY	TEST METHOD	NOTES	UNITS	METRIC	UNITS	IMPERIAL
GENERAL						
Colour	Black, Red, Yellow					
Density	ISO 1183	Test Method A	g/cm ³	1.141	lb/inch ³	0.042
Material Notes For applications requiring higher compressive strength the GF masterbatch incorporates hollow glass ovule, designed to float and evenly distribute through the polymerising polymer. The glass additive allows the material to operate at higher maximum service temperatures while the wax counteracts the deteriorating surface slip characteristics making this product an outstanding abrasion and temperature resistant material at high loads.						
MECHANICAL						
Tensile Strength	ISO 527-1/2	Type 1B, 50mm/min	MPa	70	psi	10200
Elongation at Break	ISO 527-1/2	Type 1B, 50mm/min	%	≤ 10	%	≤ 10
Tensile Modulus	ISO 527-1/2	Type 1B, 50mm/min	GPa	3	ksi	435
Flexural Strength	ISO 178	1.5mm/min	MPa	115	psi	16700
Flexural Modulus	ISO 178	1.5mm/min	GPa	3	psi	435
Compressive Strength	ISO 604	Type B, 5mm/min	MPa	105	ksi	15200
Compressive Modulus	ISO 604	Type B, 5mm/min	GPa	3	psi	435
Izod Impact Strength	ISO 180	Type A (Notched)	kJ/m ²	4.5	ft-lb/in ²	2.14
THERMAL						
CTE, linear	ISO 11359-2	@ Temperature 23-55 °C @ Temperature 73.4-131 °F	µm/m°C	80	µm/in°F	44.4
Melting Point	ISO 11359	-	°C	220	°F	428
Maximum Service Temperature, Air	Intermittent	-	°C	190	°F	374
Maximum Service Temperature, Air	Continuous	-	°C	120	°F	248
Minimum Service Temperature, Air	Intermittent	-	°C	-100	°F	-148
ELECTRICAL						
Volume Resistivity	IEC 60093	-	Ω·cm	10 ¹⁴	Ω·cm	10 ¹⁴
Surface Resistivity	IEC 60093	-	Ω	10 ¹³	Ω	10 ¹³
Dielectric Constant	IEC 60250-1	@ Frequency 10 ⁵ Hz	Hz	3.7	Hz	3.7
Dielectric Strength	IEC 60243-1	-	kV/mm	25	kV/in	635
Comparative Tracking Index	IEC 60112	-	V	600	V	600

PRODUCT AVAILABILITY

Rod	10mm-500mm DIA
Plate	6mm-100mm Thickness
Custom Castings	Bespoke
Cut to size	Available upon request

NOTES

- Mechanical properties of semi-finished products are highly dependent on degree of crystallinity (due to nucleation by additives and pigments), part geometry and dimensions. The value of actual mechanical properties of products may differ from the values listed.
- In the case of Polyamides, mechanical properties change due to the absorption of moisture. The rate and extent of these changes are therefore contingent on the surrounding atmosphere, ambient temperature and humidity, and duration of exposure. Property changes due to the influence of moisture absorption are primarily limited to a region beginning at the surface of the material and extending within to a certain depth. Part wall thickness can therefore influence the proportion of the material affected. This is also the case for mechanical property changes resulting from exposure to high temperatures in which the polymer undergoes thermal ageing by oxidation.
- As such, the information stated previously is intended to serve as a guide to aid in material selection and does not guarantee specific properties or the suitability of a material for a particular application. No warranties or representations are given in respect of the foregoing information.